

a conduit extending from said one of said tank and said bladder containing lubricating oil to said bearings;

a solenoid operated valve in said conduit and operable only to either fully open or fully close; and

a control circuit for pulsing said solenoid at a controlled rate to alternately (a) allow oil flow and (b) halt oil flow to said bearings for a time insufficient to cause oil starvation of said bearings.

Amend Claim 11 as follows:

11. (Amended) A non-recirculating lubrication system for an expendable gas turbine engine in an airborne vehicle engine comprising:

a rotatable shaft within said turbine engine;

bearings journaling said shaft for rotation about an axis;

a tank;

a bladder within said tank;

a source of gas under pressure;

one of said tank and said bladder containing lubricating oil for said bearings;

the other of said tank and said bladder being connectable to said source of gas under pressure;

a pressure regulator interconnecting said source of gas under pressure and said other of said tank and said bladder;

a conduit extending from said one of said tank and said bladder containing lubricating oil to said bearings;

a solenoid operated valve in said conduit and operable only to either fully open or fully close;

a metering orifice in said conduit between said solenoid operated valve and said bearings;

a control circuit for pulsing said solenoid at a controlled rate to alternately (a) allow oil flow and (b) halt oil flow to said bearing for a time insufficient to prevent oil starvation of said bearings; and

said control circuit receiving inputs representing vehicle velocity, vehicle altitude and lubricating oil or ambient temperature.

Amend Claim 13 as follows: